

DOCUMENT RESUME

ED 225 101

CS 006 883

AUTHOR Parsons, James B.
TITLE Some Implications of Learning Theories on a Theory of Reading and Reading Instruction.
PUB DATE [75]
NOTE 21p.
PUB TYPE Viewpoints (120)
EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Cognitive Processes; Elementary Secondary Education; *Epistemology; *Learning Theories; Linguistic Theory; Perception; *Reading Comprehension; *Reading Instruction; Teaching Methods

ABSTRACT

While stimulus-response theories of learning maintain the reality and importance of the stimulus outside the perception of the person, a cognitive-field learning theory insists that, in order to make meaning, a person must perceive and react with the stimulus. Holding to this or any learning model has implications for the following: a definition of reading, a theory of language, the value of perception, and a method of reading instruction. Holding to a cognitive-field theory of learning implies that the definition of reading involves the semantic-symbolic message of a written work and the reader's options of meaning that are brought to the written message because of past experiences. Cognitive-field learning theory also implies that language, because of its relationship to dynamic, purposive, and value-loaded people, must be dynamic, purposive, and value-loaded. It means that there is more to language than literal meaning. Concerning the question of perception, the cognitivist would state that perception ties intrinsically to reading because the perception process clearly involves components of prediction, identification, and interpretation. For reading instruction, the cognitive theory calls for instruction in meaning emphasis--the acquisition of a sight vocabulary through a whole word or Gestalt method and for a language immersion approach that is based on the belief that reading is a personal, dynamic, sharing relationship between reader and language. (HOD)

* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

+ This document has been reproduced as
received from the person or organization
originating it.
Minor changes have been made to improve
reproduction quality.

• Points of view or opinions stated in this docu-
ment do not necessarily represent official NIE
position or policy.

ED225101

SOME IMPLICATIONS OF
LEARNING THEORIES
ON
A THEORY OF READING
AND READING INSTRUCTION

"PERMISSION TO REPRODUCE THIS
MATERIAL HAS BEEN GRANTED BY

James B. Parsons

TO THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC)."

James B. Parsons
Associate Professor
Department of Secondary Education
University of Alberta
Edmonton, Alberta
T6G 2G5

CS066883

While stimulus-response (S-R) theories of learning maintain the reality and importance of the stimulus outside the perception of the person, a cognitive-field learning theory insists that, in order to make meaning, a person must perceive and react with the stimulus. This relationship between stimulus and person can be expressed by the following story.

The story concerns three baseball umpires who were discussing the problems of their profession. The first umpire said, "Some's balls and some's strikes and I calls 'em as they is." The second umpire said, "Some's balls and some's strikes and I call 'em as I sees 'em." While the third umpire said, (I sees 'em comin' across and) "Some's balls and some's strikes but they ain't nothin' till I calls 'em." (Cantril, 1957)

Whether you hold to a cognitive-field learning theory or a stimulus-response learning theory effects how you view the reading process. For example, if you hold to an S-R theory, you might be ready to react to this paper already -- you know intuitively that reading is not a process. At the best reading is an associative habit that is learned best by repetition and reinforcement.

Smith (1971) in his landmark book Understanding Reading notes the importance of holding to a particular theory by spending two chapters discussing the differences between the stimulus-response theory of learning (Chapter 5) and the cognitive-field theory of learning (Chapter 6). The purpose of this paper is to further extend Smith's deliniation by pointing out in greater detail the basic differences in these learning theories and, then, to begin to answer the question so what?. What are, specifically, the implications of holding to a cognitive "vantage point?" (Smith, 1971) Although all of the implications can not be dealt with, hopefully this paper will contribute to the distinction that Smith has started in Chapters 5 and 6.

Smith (1971) states that there are basically two alternative psychological theories about learning, the extremes of which are diametrically in opposition. These are the cognitivistic (this paper will use the term cognitive-field) and

the behavioristic positions. The behavioristic view is that learning circumstances are those of habit formation, and that the only data of importance are the observable circumstances in which habits are established. The cognitive-field view is that learning involves the acquisition of knowledge, and that what is interesting is the unobservable manner in which information is acquired and organized by the brain.

Smith points out, because these theories of learning have coexisted for fifty years or so is some proof that neither of these oppositions is obviously false, obsolete, inadequate, or useless. Neither will one experiment either demolish any of the theories or prove one theory true at the expense of the competitor. What is important is to what extent various theories provide a consistent and dependable foundation for educational practice. In terms of this paper, educational practice is the instruction of reading.

Although I am committed to a cognitive-field theory of learning, no specific research pitting a particular reading program with an S-R base against a reading program with a cognitive-field base will be shown. Such research exists (Davis 1971; Chall, 1967) but I feel that (1) such research could be used selectively to prove either point and (2) such research probably would not prove either point, in any case. When research is offered in this paper, it will generally be for the purpose of adding to or substantiating a point held by cognitive-field learning theorists.

Mouly (1973) notes some of the basic differences between the field (cognitive-field) and the associationistic (behavioristic) learning theories. These basic differences include:

BEHAVIORIST	COGNITIVE-FIELD
<u>I. Views of Learning</u>	
A) Learning is a matter of bond between stimulus and response	A) Learning is the dynamic and meaningful organization of experience into cognitive structure.
B) Learning under conditions of reinforcement is the key concept.	B) Perception of relationships is the key concept.

II. Parts vs. Whole

- | | |
|--|--|
| <p>A) A whole is made up of separate, fundamental parts. A complex action is the additive combination of simple acts.</p> <p>B) The parts can be studied independently and then combined to form the meaning of the whole.</p> <p>C) Learning proceeds from the simple to the complex.</p> | <p>A) The parts emerge from the whole. The whole is primary; the parts only have meaning because of the field in which they exist.</p> <p>B) Learning is not additive.</p> <p>C) The individual begins by perceiving the whole (albeit imperfectly).</p> <p>D) Progressive differentiation of the components clarifies the picture of the whole and of the parts in relation to the whole.</p> |
|--|--|

III. Views of Reality

- | | |
|--|---|
| <p>A) The environment is real. Things are seen as they are. The physical environment is seen, meaning is attained, and a response is made.</p> | <p>A) The environment is phenomenological and relativistic. Absolute reality may exist but it does not coincide with psychological reality. The basis for behavior is not reality but the world as perceived.</p> |
|--|---|

IV. Mechanistic vs. Dynamic

- | | |
|--|--|
| <p>A) Oriented toward objective measurements, reinforcement schedules. All of these are relatively scientific in nature. Emphasis is on overt behavior which can be measured.</p> <p>B) Practice under conditions of reinforcement is fundamental.</p> | <p>A) Behavior involves dynamic interaction between organism and environment. Psychological behavior involves purposes, insights, and goals rather than mere physical movements.</p> <p>B) Emphasis is on insight. The adequacy of a response varies with the degree of cognitive clarity.</p> |
|--|--|

V. Historical vs. Situational Perspective

- | | |
|--|--|
| <p>A) Emphasis is generally on the past. (There is not unanimous agreement on this point).</p> | <p>A) Emphasis is on the present as perceived.</p> |
|--|--|

VI. Applicability

- | | |
|--|--|
| <p>A) Fits reaction-type learnings and habit formation</p> | <p>A) Higher processes involving a dynamic interaction among the various elements of the learning situation.</p> |
|--|--|

Bigge and Hunt (1968) support Mouly's contention that there are some features of cognitive-field theory that make it distinctly different from any of the S-R theories. The foremost of these features is its relativistic approach to the study of perception and reality. Other important characteristics are interpretations of intelligent behavior as purposive, emphasis upon psychological functions rather than objects, a situational as opposed to a historical point of view, and stress upon the principle of contemporaneity.

These basic differences in the S-R learning theory model and the cognitive-field learning theory model have implications on how people think, learn, and act. For example, it would seem unlikely that an S-R theorist would deal very much with creativity in his classroom. On the other hand, it would seem unlikely that a cognitive-field theorist would have unison drills to teach his entire class how to say the short e sound.

More generally, holding to a particular learning model has implications on the following:

- (1) a definition of reading
- (2) a theory of language
- (3) the value of perception
- (4) a method of reading instruction

These implications are important because how a person views something defines, to a large extent, how he will act. Specifically, a reading teacher will act a certain way if he defines reading narrowly and he will act another way if he defines reading broadly. He will act one way if he defines language as productive and he will act a certain other way if he defines language as reproductive. He will act a certain way if he values perception and he will act another way if he thinks that perception has no importance. And, he will act one way if he thinks that reading should be instruction in sounding and he will act another if he thinks reading should be instruction in meaning.

Implications on a Definition of Reading

An S-R learning theory generalization would probably be that reading is simply the decoding of visual stimuli using previously learned sound or word models. A cognitive-field theorist would generally have a broader interpretation of reading. Included in a wider cognitive-field definition would probably be the reading of non-verbal signs as well as symbols that appear in

books, newspapers, etc. Among these non-verbal stimuli could be mothers reading the cries of their babies. Watson and Morgan (1917) found that unmarried graduate students could not distinguish a pain cry from a cry of rage unless they could see the stimulus. Mothers, on the other hand, could make such a distinction without seeing the child.

Can people read the emotions and the expressions of other people? Studies by Glaser and Eisenberg (1956), Sontag, Baker, and Nelson (1958), and Koch (1968) tend to show that this is the case. Even if this is true, is it reading? An S-R theorist and a cognitive-field theorist might disagree. But does it matter?

Before building a design for reading instruction, it seems that a clear definition of reading is essential. Depending upon individual orientations, reading can be taught in many ways. (Aukerman, 1971; Chall, 1967; Davis, 1971) To a small child reading may be flipping through the pages of The Three Pigs. To a first grader, it might mean just knowing some words. To that same first grader's teacher, that first grader may be a nonreader. Artley (1973) states that teachers call kids nonreaders who are not able to function at grade level. Stauffer (1969) states that of the many descriptions of the reading process comprehension was the only universally agreed-upon characteristic of reading.

Reed (1970) and Flesh (1955) have narrow definitions of reading which are more in line with an S-R model. Reed, for example, disagrees that reading must always involve understanding and writes: "Reading is the identification of linguistic forms from strings of written configurations that represent them . . ." (pp. 222). Flesh's definition led him to make the claim that he could teach reading simply by having the student (Johnny) follow his system of phonics. These definitions equate reading with knowing the sounds of the words.

In contrast to these narrow definitions of reading are definitions more in line with a cognitive-field learning model. Russell (1956) defines reading as a conceptualized response to a printed word stimulus. In this definition of reading, conceptualizations within the reader's experience play a vital part. Russell's definition can be compared to Huey's (1908) views that reading is acquiring mental sets almost directly from the author or written work.

Stauffer states that Bruner, Goodnow, and Austin (1956) and Byers (1961) view thinking and reading strategies as comparable. Goodman (1970) states that reading is a psycholinguistic guessing game in which the reader uses a selective process with (in addition to) his own perceptions and language meanings to make a series of guesses that will be confirmed or rejected during the course of reading.

One rather intricate theory of reading is held by Holmes (1970). What the child knows, Holmes says, is dependent upon the information and memories stored in the brain cells. A hierarchy of cell-assemblies containing memory traces tend to react in a certain order upon a stimulus (for example, a word a child reads). Therefore, Holmes says, the ability to reason about what is being read depends upon the nature of the stored information that the child reads and the degree of meaningfulness of the information received. Holmes calls this the Substrata-Factor Theory of Reading.

Holding to a cognitive-field theory of learning implies that the definition of reading is far more encompassing than knowing the sounds of the words that the reader is confronted with. A cognitive-field theorist's definition of reading involves the semantic-symbolic message of a written work and it involves the reader's options of meaning that he brings to the written message because of past experiences. A cognitive-field definition of reading may involve more than just written messages--it may involve nonverbal messages as well.

Implications of a Theory of Language

One implication of cognitive-field learning theory on a theory of language is the implication that language; because of its relationship to dynamic, purposive, and value-loaded people; must also be dynamic, purposive, and value-loaded. This would imply that there is more to language than literal meaning, just as there is more to human action than literalness.

Word count methods of language research have uncovered several findings. One of these findings is Zipf's Law of Least Effort (1949). According to Zipf's law, the more effort involved in emitting a given word, the less frequently the word will appear in everyday language. Manis (1971) states that the relationship between word length and word frequency has been verified in

Chinese, Latin, and English, suggesting that this is probably characteristic of all languages. Furthermore, according to Zipf's Law, frequent usage causes shortening of words (automobile to auto or car, television to TV, telephone to phone, etc.).

Manis also points out Sapir's (1916) argument that the length of a word gives us a clue to its age. Short words, Sapir argues, are old words. New words are more likely to be longer because they are compounds (many of them) made up by combining short words. In 1916, Sapir wrote that short words such as "knight", "good", and "sun" have been part of the English language for a considerable time, whereas new words like "delicatessen" are of more recent origin. (This 1916 argument is interesting because in most parts of North America "delicatessens" are most often called "dellies".)

Zajonc (1968) explains that words with "good" connotations appear far more frequently than words with "bad" connotations. He has found that subjects will show an increasingly positive attitude to (a) nonsense syllables, (b) Chinese characters, and (c) pictures of unfamiliar people if these stimuli are presented to them repeatedly. The implication is that frequently used words will acquire "good" connotations. What effects what is not clear; however, it seems clear that people are affected and are effected by more than simply the literal meaning of the word. If one holds to a cognitive-field learning theory, then language, perception, and the contextual experience of the language play important parts in language development.

Chomsky (1965) has postulated a language acquisition system in which each child is biologically equipped with the ability to generate both sentences and the systems needed for the creation of new sentences. The child comes in contact with the environment and uses the environment to pick and choose examples of the language that he will learn/is learning. The child takes in this information, internalizes it, formulates some rules (most often unconsciously) about the nature of the language he is learning, spews forth examples that are tested for validity and corrected by a language tutor (often a parent). If they are corrected by a language tutor, the child assumes that these rules are valid. If they are unchanged the child can revise and restructure his rules. He gradually builds an efficient inner-language generating system. Such reading programs as Scholastic's Big Books are based upon such theory.

Skinner (1957), on the other hand, says that language is learned like any other cultural habit. To Skinner there are two major types of verbal behavior. These are mands (commands, demands, contramands) and tacts (contacts). Skinner states that mands are the result of a response to an inner need or an aversive stimulus. For example, "Give me water!" or "Don't shoot! I'm innocent!" are mands. Tacts are controlled by objects or events. "That's your book on the floor." and "Zebras have stripes." are examples of tacts.

All language, Skinner believes, is responsive to the reinforcement patterns that are conditioning the speaker. Reinforcement traditions such as "no swearing in church" exert control on the speaker. The speaker's audience might approve, disapprove, pay money for, scream, cry, or laugh; and, in all these ways, they will reinforce the language of the speaker. In all instances, Skinner postulates, language arises because there is a direct copy of language by the speaker or because environmental language patterns are conditioned post hoc on the speaker by the language environment.

Whorf (1956) developed a theory called the "linguistic relativity theory." This theory asserts that thought is shaped by the form of the language used for thinking. As Whorf states, "No individual is free to describe nature with absolute impartiality but is constrained to certain modes of interpretation." (pp. 214).

Brown and Lenneberg (1954) did the following experiment. Using college students, they decided whether a color had a high codability (was easily named) or a low codability (was difficult to name). Red and yellow were given a high codability by these college students. Color chips were used as stimulus to a group of Zuni Indians, whose language does not contain different words for red and yellow. While English speaking subjects never confused the red and yellow chips, the Zuni subjects frequently confused the red and yellow color chips. A group of Zunis who also spoke English was given the color test; and, while they did not confuse red and yellow as much as the Zuni--no English, there was some confusion between colors.

Implications on the Value of Perception

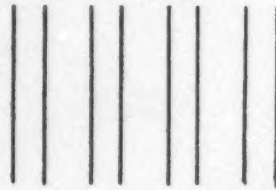
The question of perception is a question central to cognitive-field learning theory. Holding as S-R learning theory implies that perceptions are unimportant--the environment is real and stable and it is seen exactly as it exists. A cognitivist like Smith (1971), on the other hand, would say that it is the individual's perception of the environment that is important. Smith states that perception ties intrinsically to reading because the perception process clearly involves components of prediction, identification, and interpretation.

The research on perception in reading has been reviewed extensively by Gage (1963), Harris (1960), and others. Smith (1968) has edited a collection of research studies on perception and reading. These collections of research and research reviews deal generally with the pragmatics of perception--looks at causes and results with the general purpose of remediation. (ie. Frostig and Horne, 1964). Much of this research deals with the effects of perception and impaired perception on the physiological aspects of reading--visual fixations, auditory discriminations, or articulatory functions. While this research fits with a cognitive-field model, a cognitive-field model would also incorporate the idea of perception more broadly into the reading process.

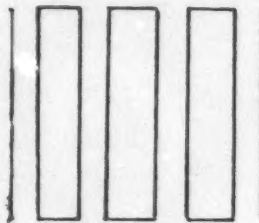
A pioneer in the effects of perception on cognitive structures was Adelbert Ames. Ames, according to Postman and Weingartner (1969), created a series of events designed to study the nature of perception. His demonstrations included weirdly shaped objects (houses, rooms, windows, etc.) that appeared to distort reality. One demonstration was a trapezoid shaped window which turned horizontally in a 360° circle. To an onlooker, however, the window appeared to turn 180°, stop, and turn back 180°. According to Postman and Weingartner, John Dewey believed that Ames had provided empiracle evidence for the "transactional psychology" that he and Arthur Bentley had formulated. Postman and Weingartner state that the sense of "transactional psychology" is that what human beings are and what they do with their environment is "a product of a mutually simultaneous, highly complex, and continuing 'bargaining' process between what is inside their skins and outside." (pp. 89).

Ames' experiments with perception suggest that what we see comes both from without and from within. The trapezoid window appeared to do a half-turn and stop to turn back again because past experiences had dictated that this was the way that it should look.

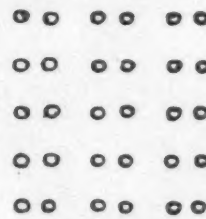
Although Ames was not a Gestalt psychologist, Gestalt psychologists have devised ingenious ways to demonstrate their theory that the brain has a built in system for organizing visual information. The figures shown on page 13, show three of the laws of organization that the Gestalt psychologists have devised. These are the law of proximity, the law of similarity, and the law of closure. (The close technique used by many reading teachers in an offspring of the Gestalt law of closure.)



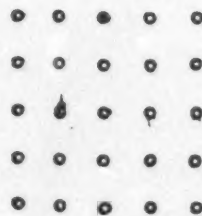
(a)



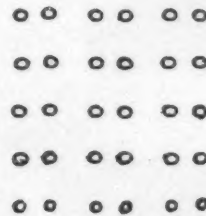
(b)



(c)



(d)



(e)

Gestalt laws of organization. (a) Proximity: There seem to be four pairs of two lines, rather than eight separate lines. (b) Closure: The four proximity columns have been destroyed by the addition of the horizontal lines. Now we see three rectangles and two irrelevant extra lines. (c) Proximity: We organize the circles into three columns. (d) Similarity: We see vertical rather than horizontal lines. (e) Proximity and similarity in opposition: This perpetual grouping is unstable.

As shown in the figure, the relationships between the visual stimuli triggers the human brain into organizing the stimuli into boxes, columns, etc. Gestalt learning theory presumes that the same laws working on the items on page 10 operate in real-world perceptions.

One Gestalt principle centers on figure-ground perception. This principle states that there is always a focus of attention. And, when attention is focused on one thing, all other things seem to fade into the background.

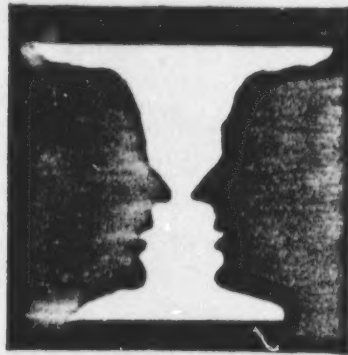
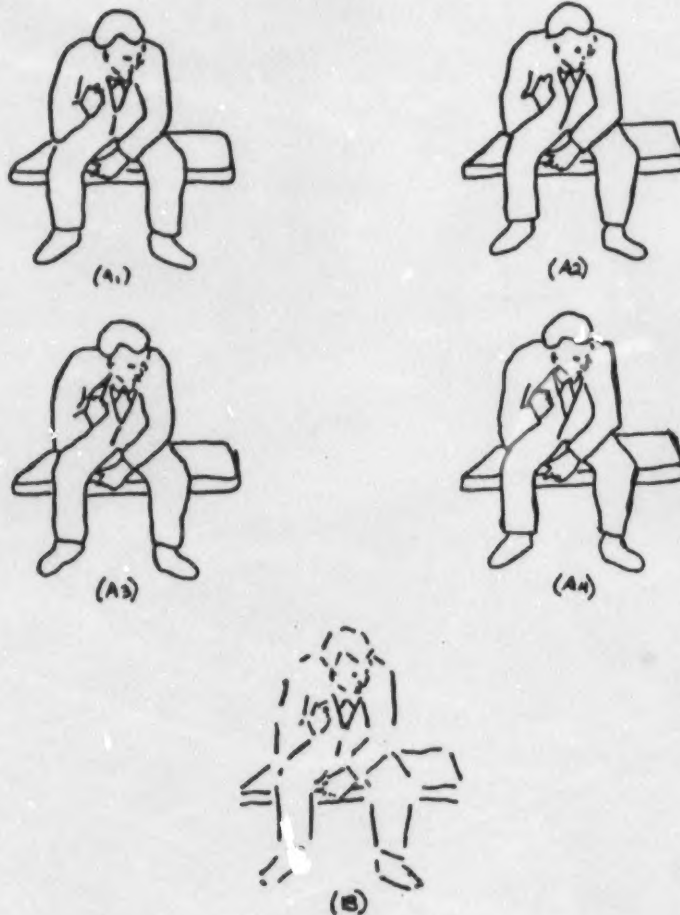


Figure-ground perception is illustrated by the alternation of the central . Sometimes it is a white vase, other times it is two profiles. This is Rubin's "Peter Goblet."

Research on cognitive styles (Witkin, et al., 1962) suggests that people can differ in cognitive styles. They can be either field-dependent or field-independent. This independency from field or dependency on field might have implications on learning how to read. For example, research has shown that girls are generally more field-dependent than boys. (Kagan, Moss, and Sigel, 1963). Research has also shown that girls are more proficient readers than boys. (Maccoby, 1966). It has been suggested (Farnham-Diggory, 1972) that perhaps this is because girls are "better able to respond to context (field clues) during the reading process." (pp. 278).

Another Gestalt principle is the rule of good form. This is the tendency in people to have to complete incomplete forms.

A study by Guthrie and Wiener (1966) used a tachistoscope to give subjects brief exposure to the following pictures, (pp. 16). The look at the picture was so brief that the subjects were not able to register exactly what they were seeing. Immediately after taking a brief look at one of the A figures, the B figure was exposed for a longer period of time and the subjects were asked to make judgments about the man (ie., helpful or harmful, pleasant or unpleasant, etc.). The only difference was that one was angular and one was rounded.



Influencing eye-mind relationships (Guthrie and Wiener, 1966)

The results showed that the short exposure to the A figures influenced the judgments of the B figures. If the subject had seen an angular A figure, he was more likely to see B negatively. If the subject had rounded A figures, he was more likely to have positive feelings about B. The presence of the gun in figures A₃ and A₄ did not have any effect on the judgment given to B.

Another Gestalt principle is the rule of good form. This is the tendency in people to have to complete incomplete forms.



(If you have trouble with this shape, look at it from a distance of about three or four feet. It is a horse and rider.)

The cognitive-field learning theorist would probably suggest that data such as this would tend to support the hypothesis that, during the observation of any stimulus, the human mind plays a major role in perceiving that stimulus. The S-R theorist, on the other hand, states simply that as a stimulus exists in reality so it is seen by an observer.

Implications on a Method of Reading Instruction

What does holding to a cognitive-field learning theory imply for instruction. Burton (1958), Symonds (1960), and Watson (1960) have examined the issue of common principles of learning. Hamachek (1975) summarizes their work into a list of twenty-five major learning principles. Of these twenty-five, the following are implied from a cognitive-field model.

1. The learning process is experiencing, doing, reacting, and undergoing.
2. Sheer repetition of a learning task without either any indication how to improve or change (or reasons why to improve or change) inhibits progress in learning.
3. The learning process, initiated by need and purpose, is likely to be motivated by its own incompleteness.
4. The learning situation, to be of maximum value, must be perceived by the learner as realistic, meaningful, and useful.
5. The type of reward that has the greatest possibility of applying to other life situations is the kind one gives oneself.
6. The learning process proceeds most effectively when the experiences have relationship to the experiential background of the student.
7. The learning process is stimulated to best effort when it operates within a rich and varied environment. Sameness, either in the teacher or in learning setting, dulls attention and stifles motivation.
8. Most students will persist through difficulties, over obstacles, and through unpleasant situations to the extent that they see the objectives worthwhile and the goal attainable.
9. The experience of learning by sudden insight into previously puzzling situations happens often if: (a) the student has sufficient background and preparation; (b) attention is given to relationships operative in the whole situation; and (c) the task is meaningful and within range of the abilities of the student.
10. The best way to help students form a general concept is in numerous and varied situations, the concept will be useful when it becomes a more generalizable idea that has applications in situations different from those in which the concept was learned (pp. 440-441).

In terms of reading instruction, the separation of the S-R model and the cognitive-field model translate into two different points of view. These are a point of view calling for instruction in code emphasis (S-R model) and one calling for instruction in meaning emphasis (cognitive-field model). (Actually, few programs are on the extreme edges of this split. Most programs tend to incorporate a little bit of each. Generally, this split is made to point out a tendency towards either a code emphasis or a meaning emphasis.)

In the code emphasis programs, the initial phases of reading instruction put a heavy emphasis on learning the alphabet and phonograms. Other code programs begin by emphasizing long and short vowel combinations. Regardless of differences in the word study content of these various code emphasis programs, all stress word recognition development by a "sounding out" process (Manning, 1971).

Meaning emphasis programs, on the other hand, encourage the acquisition of a sight vocabulary through a "Whole word" or Gestalt method, Manning states. However, it should be noted that a whole-word approach need not follow a cognitive-field theory. Some whole-word approaches (Kukerman, 1971) are based entirely on C-V-C units (consonant-vowel-consonant) words such as cat, mat, hat, pat, rat, etc. Generally this type of whole-word approach would more closely follow a code emphasis approach. The use of context clues is encouraged in the word attack program.

Four definable approaches are generally used in developing formal reading programs: these are the developmental, synthetic, language immersion, and eclectic. Of these four approaches, the synthetic approach ties in most neatly to the S-R model. The pedagogical base for this approach rests on the assertion that there is a code (the alphabet) and this code can be associated with sound equivalents (phonemes). Because the letters have a fairly consistent relationship with sounds, letter-sound patterns should be taught before more general reading activity is started. This view takes a narrow definition of reading--"sounding out" words. The synthetic approach lends itself to more specificity and greater utility in large group instruction--the typical educational setting. However, a cognitive-field theorist would probably suggest that, even though the approach lends itself to educational pragmatics, it is doubtful that this is what reading actually is.

The language immersion approach ties in most closely to a cognitive-field model. The pedagogical base for this approach rests on the belief that reading is personal, that reading is a sharing relationship between reader and language, and that reading is dynamic. No deliberate attempt is made to control the basic vocabulary at the beginning and the use of natural language patterns is encouraged. Activities are directed toward the insight that "what is spoken can be written and what is written can be read." The assumption is that kids will perceive more personal meaning if what they read is related to their life.

Reading has the broad definition of 'meaning making.' An S-R theorist would probably suggest that this approach is based too nearly on magic and mystery to have any instructional utility. And, furthermore, if you can't show the association between a stimulus and a response--you can't know how to teach. Learning is reproductive in the S-R model; and, you just can not reproduce what you can't explain.

For an instructional base, the cognitive-field approach would imply that the learning situation be first looked upon as a whole and second as a series of parts. A cognitive-field approach would also imply that the higher order cognitive processes (Bloom, 1956) would be as important as knowledge of stimulus-response activity even though there might be no direct link between synthesis and stimulus.

Conclusion

There are not just different kinds of reading programs and instructional models; there are, instead, different belief systems operating in the formation of any instructional design. Furthermore, these belief systems do not have only a few differences. Philosophically, each sees the world differently in many respects and see the way that humans function within the world in fundamentally different ways. It is unfortunate that most reading people do not understand the fundamental rift.

BIBLIOGRAPHY

- Artley, A.S. "Perceived versus Measured Reading Skills." J. Read, January 1973, 16, 318-323
- Aukerman, R.C. Approaches to Beginning Reading. New York: Wiley, 1971.
- Bigge, Morris and Maurice P. Hunt. Psychological Foundations of Education. New York: Harper & Row, 1968.
- Bloom, B.S. (ed.) Taxonomy of Educational Objectives: Cognitive Domain. New York: McKay, 1956.
- Brown, R. and E.H. Lenneberg. "A Study in Language and Cognition" Journal of Abnormal & Social Psychology, 1954, 49, 454-462.
- Bruner, J.S., J. Goodnow, and G.A. Austin. A Study of Thinking. New York: John Wiley, 1956.
- Burton, W.H. "Basic Principles in a Good Teaching-Learning Situation," Phi Delta Kappan 39, March 1958, 242-248.
- Byers, J.L. Strategies and Learning Set in Concept Attainment, Unpublished doctoral dissertation, University of Wisconsin, Madison, Wisconsin, 1961.
- Cantril, Hadley "Perception and Interpersonal Relations," American Journal of Psychiatry, August, 1957, p. 126.
- Chall, J.S. Learning to Read: The Great Debate. New York: McGraw-Hill, 1967.
- Chomsky, N. Aspects of a Theory of Syntax, Cambridge, Mass.: M.I.T. Press, 1965.
- Davis, F.B. The Literature of Research in Reading with Emphasis on Models. Washington, D.C.: United States Department of Health, Education, and Welfare, 1971.
- Farnham-Diggory, S. Cognitive Processes in Education. New York: Harper & Row, 1972.
- Flesh, R. Why Johnny Can't Read and What You Can Do About It. New York: Harper & Row, 1955.
- Frostig, M. and D. Horne The Frostig Program for the Development of Visual Perception. Chicago; Follett, 1964.

- Gage, N.C. (ed.) Handbook of Research on Teaching. Chicago: Rand McNally, 1963.
- Glaser, K. and L. Eisenberg. "Maternal Deprivation." Pediatrics, 1956, 16, 626-642.
- Guthrie, G. and M. Wiener. "Subliminal Perception or Perception of Partial Cue with Pictorial Stimuli." Journal of Personality and Social Psychology, 1956, 3, 619-628.
- Hamachek, D. Behavior Dynamics in Teaching, Learning, and Growth. Boston: Allyn and Bacon, Inc., 1975.
- Harris, C.W. Encyclopedia of Educational Research. New York: The MacMillan Co., 1960.
- Holmes, J.A. "The Substrata-Factor Theory of Reading: Some Experimental Evidence." In H. Singer and R.B. Ruddell (eds.) Theoretical Models and Processes of Reading, Newark, Delaware: International Reading Association, 1970, 187-197.
- Huey, E.B. The Psychology and Pedagogy of Reading. New York: MacMillan, 1908.
- Kagan, J., H. Moss, and I.E. Sigel. "Psychological Significance of Styles of Conceptualization." In J.C. Wright and J. Kagan (eds.), Basic Cognitive Processes in Children, Monographs of the Society for Research in Child Development, 1963, Serial No. 86, 73-111.
- Koch, R. "The Dilemma of the Clinician in the Diagnosis of Mental Retardation." Paper presented at the meeting of the California Psychological Association, Santa Barbara, January 26, 1968.
- Maccoby, E. (ed.) The Development of Sex Differences. Stanford, California: Stanford University Press, 1966.
- Manning, J.C. "Reading". In D. Allen and E. Seifman (eds) The Teacher's Handbook. Glenview, Illinois: Scott, Foresman, and Company, 1971.
- Manis, M. An Introduction to Cognitive Psychology. Belmont, California: Wadsworth Publishing Co., 1971.
- Mouly, G., Psychology for Effective Teaching. New York: Holt, Rinehart, and Winston, Ind., 1973.
- Postman, N. and C. Weingartner. Teaching as a Subversive Activity. New York: Dell, 1969.
- Reed, D.W. "A Theory of Language, Speech, and Writing." In H. Singer and R.B. Ruddell (eds.) Theoretical Models and Process of Reading. Newark, Delaware: International Reading Association, 1970.

- Robeck, M. and J. Wilson. Psychology of Reading: Foundations of Instruction. New York: John Wiley & Sons, Inc., 1974.
- Russell, D.H. Children's Thinking. Boston: Ginn, 1956.
- Sapir, E. "Time Perspective in Aboriginal American Culture: A Study in Method." Geological Survey, Department of Mines, Memoir 90, No. 13, Anthropological series, 1916, 62, 54-57.
- Skinner, B.F. Verbal Behavior. New York: Appleton, 1957.
- Smith, H.K. (ed.) Perception and Reading, Newark, Delaware: International Reading Association, Inc., 1968.
- Sontag, L.W., C.T. Baker, and V.L. Nelson. "Mental Growth & Personality Development: A Longitudinal Study." Monograph, Society for Research in Child Development, 1958, 23(2).
- Stauffer, R.G. Directing Reading Maturity as a Cognitive Process. New York: Harper & Row, 1969.
- Symonds, P.M. What Education Can Learn from Psychology. New York: Bureau of Publications, Teachers College, Columbia Univ., 1960.
- Watson, John B. and J.J.B. Morgan. "Emotional Reactions and Psychological Experimentation," American Journal of Psychology, 1917, 28, 163-173.
- Whoff, B.L. "Language, Thought, and Reality." J.B. Carroll (ed.) Cambridge, Mass." M.I.T. Press, 1956.
- Witkin, H.A. and R.B. Dyk, H.F. Faterson, D.R. Goodenough, and S.A. Karp. Psychological Differentiation: Studies of Mental Development. New York: Wiley, 1962.
- Zajonc, R.B. "Attitudinal effects of mere Exposure." Journal of Personality and Social Psychology, Monograph Supplement, 1968, 9, Part 2, 1-27. (a).
- Zipf, G.K. Human Behavior and the Principle of Least Effort. Cambridge, Massachusetts: Addison-Wesley, 1949.